TEACHERS' RETIREMENT BOARD

REGULAR MEETING

SUBJECT: Cash Balance Benefit Program Additional Earnings Credit, and Gain and Loss Reserve

ITEM NUMBER: 10

ATTACHMENT(S): 2

ACTION: X

MEETING DATE: June 8, 2000

INFORMATION: ___

PRESENTER: Ed Derman

SUMMARY

Following the actuarial valuation of the Cash Balance (CB) Benefit Program and prior to June 30 of the calendar year following the end of the plan year, the Teachers' Retirement Board (Board) must determine how much of any actuarial surplus should be credited to the Gain and Loss Reserve, and how much should be credited as an additional earnings credit. The Gain and Loss Reserve is established to credit interest on participant accounts for years in which investment earnings are insufficient to credit the minimum interest declared by the Board prior to the plan year. In determining whether an amount is to be credited to the Gain and Loss Reserve, the Board considers the sufficiency of the reserve in light of the goal established for the sufficiency and the recommendations of the actuary. When investment earnings exceed the program costs, the Board may declare an earnings credit in addition to the minimum interest credited to participant accounts.

The actuarial valuation of the CB Benefit Program as of June 30, 1999 was undertaken as prescribed, and presented to the Board at the March 2000 regular meeting. At that time, the consulting actuary did not make a recommendation regarding either the amount to be credited to the Gain and Loss Reserve, or the amount to be credited to the employee and employer accounts as an additional earnings credit. The actuary needed more information about the experience of the plan during the 1999-2000 plan year with regard to contribution levels and earnings before making a recommendation. It was agreed that the actuary would provide a decision matrix for the Board to use in determining both the appropriate amount with which to credit the Gain and Loss Reserve as well as any additional earnings credit later in the year. Attached is the report the actuary has provided for use by the Board in making such a determination.

At the conclusion of the 1997-1998 fiscal year, the Board adopted an additional earnings credit which, in conjunction with the minimum interest rate adopted for the 1997-1998 fiscal year, resulted in an average effective interest rate of 8.5 percent to participant accounts. In addition, the Gain and Loss Reserve was established at $346,000.

The minimum interest rate for the 1998-1999 fiscal year was 6.5 percent. However, the assets of the CB Benefit Program actually earned 16.57 percent. As a result of operations during the 1998-1999 fiscal year, the amount available for Gain and Loss Reserve and an additional earnings credit is $223,000. A major reason why the amount available for the Gain and Loss Reserve and an additional earnings credit declined from the prior year is the administrative expenses that were charged against the Program in 1998-1999. The first six months of that year represented the final period in which the program functioned as a separate plan. (Effective January 1, 1999, the Cash Balance Plan and the Defined Benefit Plan were merged into a single plan, but as separate programs.) As a plan, the old Cash Balance Plan was charged direct administrative expenses, plus, for the first time, a $242,000 allocation of department overhead. As a result of the merger, the administrative expenses are now allocated between the two programs based on their relative assets. Consequently, future administrative expenses will be substantially lower than they were in 1998-1999.

The rate of return that the program has experienced for the first 10 months of the fiscal year (July 1, 1999 through April 30, 2000) is 5.74 percent. This return, if it holds, is sufficient to fund the estimated minimum interest rate of 5.5 percent for the 1999-2000 fiscal year. The Chief Investment Officer (CIO) has indicated that he anticipates that rate of return for the CB Benefit Program will be at least 5.74 percent for the entire 1999-2000 fiscal year.

In the attached report, the consulting actuary identifies the impact of alternative additional earnings credits on the Gain and Loss Reserve, and how much the program would have to earn to pay the minimum interest rate for 1999-2000. According to the report, payment of an additional earnings credit, such that the average effective interest rate for 1998-1999 is 8.5 percent (the same rate paid in the prior year, and about 50 percent of actual earnings), would cost $58,000. Given investment returns through April 2000, the investment earnings and the remaining amount available for the Gain and Loss Reserve is sufficient to pay the minimum interest rate for 1999-2000, even if the return on investment is a –1.75 percent in May and June. As indicated earlier, the CIO has indicated that the rate of return for the program is expected to be no less than 0 percent for those two months. In addition, given that the merger will result in substantially lower future administrative expenses, the availability of funds for the Gain and Loss Reserve in the future will be substantially greater, for a given rate of investment return. As a result, the Board can prudently declare an additional earnings credit for 1998-1999, in order to provide an average effective interest rate on CB Benefit Program participant accounts of 8.5 percent.

RECOMMENDATION

Staff recommends that the Board adopt an additional earnings credit which in conjunction with the minimum interest rate adopted for the 1998-1999 fiscal year, will result in an average effective interest rate of 8.5 percent to participant accounts. The recommended rate of 8.5 percent is consistent with the additional earnings credit adopted for the prior year, but is less than the actual rate of return of 16.57 percent. As indicated in the consulting actuary's report, the 8.5 percent average effective rate of return will be generated by an additional earnings credit equal to 1.16 percent of the participant balances in the CB Benefit Program as of June 30, 1999.

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May 17, 2000

Retirement Board
California State Teachers' Retirement System

RE: CASH BALANCE BENEFIT PROGRAM AS OF JUNE 30, 1999
DECISION ON GAIN AND LOSS RESERVE AND ADDITIONAL EARNINGS CREDIT

Dear Members of the Board:

At your meeting in March, we presented the findings of the actuarial valuation of the Cash Balance Benefit (CBB) Program as of June 30, 1999. The purpose of this letter is to outline the alternatives available to distribute the Unallocated Actuarial Gains and Losses to the Gain and Loss Reserve and/or for an Additional Earnings Credit as of June 30, 1999.

UNFUNDED ACTUARIAL OBLIGATION (ACTUARIAL SURPLUS)

Based on the findings of the actuarial valuation as of June 30, 1999, the CBB Program has an Actuarial Surplus of $223,000. The following chart shows a three-year history of the calculation.

($Thousands)	June 30, 1999	June 30, 1998	June 30, 1997
Actuarial Obligation	$ 5,001	$ 1,728	$ 164
Actuarial Value of Assets	5,224	790	(393)
Unfunded Actuarial Obligation or (Actuarial Surplus)	$ (223)	$ 938	$ 557
Asset Adjustment due to Merger		1,293	
After Adjustment for Merger	$ (223)	$ (355)	$ 557

The Actuarial Surplus is allocated by the Teachers' Retirement Board each year between the Gain and Loss Reserve and an Additional Earnings Credit, if any.

GAIN AND LOSS RESERVE

The purpose of the Gain and Loss Reserve is to provide funds to credit interest when the investment earnings of the Program are not sufficient to credit the Minimum Interest Rate. The Board has a goal of maintaining the Gain and Loss Reserve at 160% of the amount anticipated to fund the Minimum Interest Rate for the coming plan year.

The following chart shows the history of the Gain and Loss Reserve.

($Thousands)	June 30, 1999	June 30, 1998	June 30, 1997
Gain and Loss Reserve			
Beginning of Year	$ 346	$ (557)	$ 0
Adjustment for Plan Merger	0	1,293	0
Additional Earnings Credit	*	(9)	0
Gain and Loss Reserve Adjustment	*	(381)	(557)
End of Year Gain and Loss Reserve	$ 346	$ 346	$ (557)
Unallocated Gains and (Losses)	$ (123)	0	0

* *To be determined by the Teachers' Retirement Board prior to June 30, 2000*

After each actuarial valuation, the Teachers' Retirement Board decides how to allocate the Unallocated Gains and Losses. The typical allocation includes an adjustment to the prior year's Gain and Loss Reserve and a declaration of the Additional Earnings Credit, if any.

Because the Program does not have any members receiving monthly benefits, the Annuitant Reserve is not currently funded, so after the Additional Earnings Credit is declared, the remaining Unallocated Gains (or Losses) strengthen (or reduce) the Gain and Loss Reserve. Therefore, absent an Annuitant Reserve, the ending balance of the Gain and Loss Reserve will equal the Actuarial Surplus as determined in the actuarial valuation, less the Additional Earnings Credit granted for the year.

- The 1997 actuarial valuation determined that the Cash Balance (CB) Plan (the predecessor to the current CBB Program) had an Unfunded Actuarial Obligation of $557,000. The Board did not take any action to adopt an Additional Earnings Credit after the 1997 valuation, so the Gain and Loss Reserve stood at $(557,000).

- The 1998 actuarial valuation determined that the CB Plan had an Unfunded Actuarial Obligation of $938,000. However, the Unfunded Actuarial Obligation was reduced by $1,293,000 as of June 30, 1998, to reflect the value of the loan from the Defined Benefit Plan which would be discharged due to the merger on January 1, 1999. Therefore, after the adjustment to reflect the merger, the CBB Program had an

Actuarial Surplus of $355,000.

- After the 1998 actuarial valuation was adopted, the Board allocated $8,916 as an Additional Earnings Credit, with the remaining Actuarial Surplus assigned to the Gain and Loss Reserve. The Additional Earnings Credit had the effect of crediting an average of 8.5% interest to Participant Accounts for the 1997-98 plan year.

- The 1999 actuarial valuation determined the Actuarial Surplus to be $223,000 as of June 30, 1999. Therefore, with a Gain and Loss Reserve of $346,000 there is an unallocated actuarial loss for the year of $123,000.

The Board must now decide how to allocate this actuarial loss. If all of it is allocated to the Gain and Loss Reserve, with no Additional Earnings Credit, the end of the year Gain and Loss Reserve will be equal to $223,000 (equal to the Actuarial Surplus contained in the actuarial valuation). The Board may decide it is appropriate to allocate some of the Gain and Loss Reserve to an Additional Earnings Credit for 1998-99.

One factor in the Board's decision may be the extraordinary level of administrative expenses incurred during 1998-99. The Cash Balance Plan and the Defined Benefit Plan were merged into a single State Teachers' Retirement Plan with a Cash Balance Benefit Program and a Defined Benefit Program on January 1, 1999. As a result of that merger, the CBB Program will be allocated administrative expenses based on the relative value of assets of the two benefit programs. Consequently, future administrative costs charged to the CBB Program will be substantially lower than the expenses charged in 1998-99.

Notwithstanding an investment return well in excess of the Minimum Interest Rate for 1998-99, the excess of cumulative administrative expenses greater than the loan from the DB Plan created an actuarial loss for the year. Exacerbating this actuarial loss was the fact that the CBB Program was charged $242,000 in overhead expenses for the first six months of the fiscal year, the first such time overhead expenses had been charged to the CBB Program or its predecessor.

ADDITIONAL EARNINGS CREDIT

The attached exhibits include information to assist the Board in deciding how much, if any, Additional Earnings Credit should be granted. We have developed a Decision Matrix which shows an ending balance in the Gain and Loss Reserve for effective interest rates ranging from the 6.50% Minimum Interest Rate for 1998-99 to over 14% if all of the Gain and Loss Reserve is used for an Additional Earnings Credit for 1998-99.

Data for Decision Matrix: The Minimum Interest Rate for 1998-99 was 6.50% and was equal to $188,490. The Minimum Interest Rate for the 1999-00 plan year is 5.50%. We have estimated the dollar amount of the Minimum Interest for 1999-00 to be $390,534 based on Account Balances of $5,000,613, and expected contributions in 1999-00 of $4,200,000 (earning interest for six months, on average). The Board's goal for the Gain and Loss Reserve is 160% of the Minimum Interest Rate for the coming year, which we estimate to be $624,854.

Decision Matrix: The enclosed Decision Matrix provides data on the effect of granting various levels of Additional Earnings credit on the Gain and Loss Reserve.

(1) The Effective Interest Rate is the average rate that would apply for the 1998-99 plan year. Note that while this would be the earnings credit for all Participants as a whole, each Participant would receive a different effective rate because the Additional Earnings Credit is applied to the Account Balances as of the end of the plan year.

(2) The Total Interest Allocated was $188,490 for the Minimum Interest Rate. The total interest will increase proportionately to the Effective Interest Rate.

(3) The dollar amount of Additional Earnings Credit is the increase in the total interest as calculated in column (2) from 6.50% to the applicable decision point. Note that the maximum Additional Earnings Credit is $223,000, the current Actuarial Surplus.

(4) The dollar amount of Additional Earnings Credit is expressed as a percentage of the sum of all Account Balances as of the end of the year. This is the percentage increase for the Additional Earnings Credit that will be applied to each Participant's Account Balance.

(5) The Gain and Loss Reserve is currently $346,000. This column shows the remaining balance of the reserve after the Board's decision on the Additional Earnings Credit. For example, if no Additional Earnings Credit is granted, the Gain and Loss Reserve will be $223,000. On the other hand, if all of the Actuarial Surplus is used for the Additional Earnings Credit, the Gain and Loss Reserve will be depleted as of June 30, 1999. Note the sum of columns (3) and (5) is always equal to $223,000.

(6) The next column shows the remaining balance in the Gain and Loss Reserve as a percentage of the amount estimated to be needed to fund the Minimum Interest Rate in 1999-2000 at each decision point.

(7) The final column shows the rate of return needed for the current fiscal year, such that the return plus the remaining Gain and Loss Reserve together are sufficient to fund the Minimum Interest Rate of 5.50% for 1999-2000.

Through April 30, 2000, the rate of return earned on program assets was 5.74%. The amount shown in parentheses indicates the negative rate of return that would have to be earned over the two months of 1999-2000 to achieve the indicated return for the entire fiscal year. For example, if the rate of return through June 30, 2000 is 3.18% (which would be achieved if the program experienced a 1.75% loss for the period of May and June of 2000), an additional earnings credit could be granted to provide an effective interest rate of 8.5% for 1998-99, and the program would still have sufficient funds available to pay the minimum interest rate of 5.5% for 1999-2000. The Gain and Loss Reserve would, however, be depleted as of June 30, 2000. If such an additional earnings credit was paid for 1998-99 and the rate of return for 1999-2000 was higher than 3.18%, funds would be available to replenish the Gain and Loss Reserve and, possibly, pay an additional earnings credit for 1999-2000. In fact, if the earnings through April hold up until the end of June, the Gain and Loss Reserve as of June of 2000 will be about the same as the June of 1999 Reserve ($165,000) after the 1999-2000 Minimum Interest Rate is credited.

Comments: The 1998-99 plan year included expense charges for the CBB Program which will not be continuing. The $1 million loan from the DB Plan did not cover all of the direct administrative expenses through December 31, 1998, and overhead was charged for the period July 1, 1998 through December 31, 1998. If the loan had covered the administrative expenses up to the date of the merger, or if the current method of allocating expenses had commenced at the beginning of the plan year, we estimate the Actuarial Surplus would have been approximately $611,000 instead of $223,000, or about 156% of the funds estimated to be needed to fund the Minimum Interest Rate in 1999-2000. The Board may wish to take this one-time aberration into account in the decision to grant an Additional Earnings Credit for 1998-99.

In our opinion, given the actual earnings through April, and the change in the method of allocating administrative expenses, it would be prudent to adopt an Additional Earnings Credit as high as 1.16% (equal to an average effective rate of 8.5%) as of June 30, 1999.

If you have any questions, please let us know.

Sincerely,

Mark O. Johnson, F.S.A.
Consulting Actuary

MOJ:j
Encls.

ADDITIONAL EARNINGS CREDIT - JUNE 30, 1999
DECISION MATRIX

DATA FOR DECISION MATRIX

Minimum Interest in 1998-99 (at 6.50%)	$ 188,490
Account Balances at June 30, 1999	$ 5,000,613
Expected Contributions for 1999-00	$ 4,200,000
Minimum Interest Rate in 1999-00	5.50%
Estimated Minimum Interest for 1999-00	$ 390,534

DECISION MATRIX (DOLLARS IN $000)

Effective Interest Rate (1)	Total Interest Allocated (2)	Add'l Earnings Credit		Gain and Loss Reserve		Return Needed for 99-00 MIR (7)
		Dollar Amount (3)	Percent of Accounts (4)	Remaining Balance (5)	Percent of 99-00 MIR (6)	
6.50%	$ 188	$ 0	0.00%	$ 223	57%	2.36% (-2.38%)
7.00	203	15	0.29	208	53	2.56 (-2.22)
7.50	217	29	0.58	194	50	2.77 (-2.07)
8.00	232	44	0.87	179	46	2.97 (-1.91)
8.50	246	58	1.16	165	42	3.18 (-1.75)
9.00	261	73	1.45	150	39	3.38 (-1.60)
9.50	275	87	1.74	136	35	3.58 (-1.44)
10.00	290	102	2.03	121	31	3.79 (-1.28)
10.50	304	116	2.32	107	27	3.99 (-1.13)
11.00	319	131	2.61	92	24	4.20 (-0.97)
11.50	333	145	2.90	78	20	4.40 (-0.81)
12.00	348	160	3.19	63	16	4.61 (-0.65)
12.50	362	174	3.48	49	13	4.81 (-0.50)
13.00	377	189	3.77	34	9	5.01 (-0.34)
13.50	391	203	4.06	20	5	5.22 (-0.18)
14.00	406	218	4.35	5	1	5.42 (-0.03)
14.19	411	223	4.46	0	0	5.50 (+0.03)

PROPOSED
RESOLUTION
OF THE
TEACHERS' RETIREMENT BOARD

SUBJECT: Adoption of Additional Earnings Credit
For the Cash Balance Benefit Program as of June 30, 1999

RESOLUTION NO. ______

WHEREAS, the Teachers' Retirement Law permits the Teachers' Retirement Board to declare an additional earnings credit with respect to the employee and employer accounts of the Cash Balance Benefit Program participants, and

WHEREAS, the Board adopted an Actuarial Valuation as of June 30, 1999, which found that the Cash Balance Benefit Program has an Actuarial Surplus of $223,000, and

WHEREAS, the actual rate of return on the assets of the Cash Balance Benefit Program for 1998-99 was 16.57 percent, and

WHEREAS, the minimum interest rate for Cash Balance Benefit Program for 1998-1999 was 5.5 percent, and

WHEREAS, the additional earnings credit adopted by the Board for the 1997-1998 fiscal year provided for an average effective interest rate of 8.5 percent, therefore, be it

RESOLVED that the Teachers' Retirement Board adopt an additional earnings credit of 1.16 percent of participant balances as of June 30, 1999, which in conjunction with the minimum interest rate, provides an average effective interest rate of 8.5 percent to participant accounts for the 1998-1999 fiscal year.

Adopted by:
Teachers' Retirement Board

on June 8, 2000

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James D. Mosman
Chief Executive Officer